CLAIMS

The current claim set of the application is presented below. Indications as to the status of the claims appear in parentheses after the claim number. Deletions are identified with double brackets or strikethrough (e.g. [[deletion]] or ~~deletion~~) and new text is identified with double underlining (e.g. new language).

1. (Previously presented) A method for providing treatment to a patient for a medical condition related to food intake comprising:

    measuring an electrical activity of the patient's gastrointestinal tract;

    estimating the quantity of food consumed by the patient as a function of the measurement; and

    delivering a therapy to the patient as a function of the estimation.

2. (Previously presented) The method of claim 1, wherein measuring the physiological parameter further comprises measuring a core body temperature of the patient.

3. (Cancelled) The method of claim 1, wherein measuring the physiological parameter includes measurement of an electric activity of a gastrointestinal tract of the patient.

4. (Previously presented) The method of claim 1, wherein measurement of the electric activity of the patient's gastrointestinal tract comprises measurement of an electric activity of at least one of a stomach, esophagus and intestine of the patient.

5. (Previously presented) The method of claim 1, wherein measuring the electrical activity of the patient's gastrointestinal tract includes measurement of transabdominal impedance.

6. (Original) The method of claim 1, further comprising measuring an activity level of the patient.

7.   (Original) The method of claim 6, wherein measuring the activity level of the patient comprises measuring physical motion of the patient.

8.   (Original) The method of claim 6, wherein measuring the activity level of the patient comprises measuring a heart rate of the patient.

9.   (Cancelled) The method of claim 1, further comprising delivering a therapy to the patient as a function of the estimation.

10.   (Previously presented) The method of claim 1, wherein delivering the therapy comprises delivering insulin to the patient.

11.   (Previously presented) The method of claim 6, further comprising delivering glucagon to the patient as a function of the estimation of the quantity of food consumed and a function of the measured activity level.

12.   (Cancelled) The method of claim 1, further comprising comparing one of the measured physiological parameter and the estimated a quantity of food to a threshold.

13.   (Currently amended) A system comprising:
        a sensor to sense an electrical activity ~~or peristaltic motion~~ of a gastrointestinal tract of a patient;
        a processor to estimate the quantity of food consumed by the patient as a function of the sensed activity ~~or motion~~ of the gastrointestinal tract, the processor configured to generate a control signal to control a drug delivery system as a function of the estimation; and
        the drug delivery system configured to deliver a drug to a body of the patient in response to the control signal.

14.   (Original) The system of claim 13, wherein the drug delivery system comprises:

a reservoir holding the drug; and

a pump to deliver the drug to the body of the patient by dispensing the drug from the reservoir.

15.   (Original) The system of claim 13, wherein the system is implanted within the body of the patient.

16.   (Previously presented) The system of claim 13, further comprises a temperature sensor to sense a core body temperature.

17.   (Previously presented) The system of claim 13, wherein the sensor that senses electric activity of a gastrointestinal tract further comprises at least one electrode.

18.   (Previously presented) The system of claim 13, further comprises at least one electrode to sense transabdominal impedance.

19.   (Original) The system of claim 13, wherein the drug comprises at least one of insulin and glucagon.

20.   (Original) The system of claim 13, wherein the drug delivery system comprises:

a first reservoir holding insulin;

a first pump to deliver the insulin to the body of the patient by dispensing the insulin from the first reservoir;

a second reservoir holding glucagon; and

a second pump to deliver the glucagon to the body of the patient by dispensing the glucagon from the second reservoir.

21.   (Original) The system of claim 20, wherein the processor is configured to generate a first control signal to control the first pump and a second control signal to control the second pump.

22.   (Original) The system of claim 13, further comprising memory coupled to the processor to store diet information for the patient.

23.   (Cancelled) A computer-readable medium comprising instructions that cause a processor to:

estimate a quantity of food consumed by a patient as a function of a measured physiological parameter that changes as a function of the quantity of food consumed by the patient; and

deliver a therapy to the patient as a function of the estimation.

24.   (Cancelled) The medium of claim 23, wherein the physiological parameter includes a core body temperature of the patient.

25.   (Cancelled) The medium of claim 23, the instructions further causing the processor to estimate a blood glucose concentration in the patient as a function of the measured physiological parameter and a measured activity level of the patient.

26.   (Currently amended) A method for delivering treatment to a patient comprising:

measuring ~~peristaltic motion~~ an electrical activity of the patient's gastrointestinal tract;

estimating the quantity of food consumed by the patient as a function of the ~~peristaltic motion~~ electrical activity of the gastrointestinal tract, the processor configured to generate a control signal to control a drug delivery system as a function of the estimation; and

delivering treatment to the patient as a function of the estimation, the treatment delivered by a drug delivery system configured to deliver a drug to a body of the patient in response to the control signal.